AMENDMENTS TO THE CLAIMS:

The listing of claims shown below will replace all prior versions, and listings of claims in the

Application:

1-65 (Cancelled)

66. (New) Apparatus for interconnecting a plurality of ports for transferring received Fibre

Channel frames, the Fibre Channel frames including frame data, between multiple attached devices

comprising:

a first port adapted to support multiple link speeds,

a second port adapted to support at least one link speed,

connectivity apparatus, the connectivity apparatus disposed between and

coupled to the first port and the second port, and

a plurality of data buses; the data buses connecting the first port to the

connectivity apparatus,

wherein the number of data buses utilized to transfer the frame data received

by the first port is the same irrespective of whether the link speeds of the first and

second port are the same or different.

67. (New)   The apparatus of claim 66 further including a processor and memory, and

logic to couple them to the connectivity apparatus.

68. (New)   The apparatus of claim 66 further including a set of registers to store pending

route requests.

69. (New)   The apparatus of claim 68 further including a hardware state machine coupled

to the registers for inserting and removing route requests.

70. (New)   The apparatus of claim 66 further including a processor and attached memory,

the memory containing instructions to convert Fibre Channel frames to Ethernet frames.

6 71. (New)   An interconnect system having a plurality of ports transferring received Fibre

Channel frames between multiple attached devices comprising,

a first port supporting a first link speed,

a second port supporting a second link speed, the second link speed different

from the first port link speed,

a third port supporting a third link speed, the third link speed is the same as

either the first port link speed or the second port link speed,

a connectivity apparatus coupled to each port, affecting the transfer of frames

between any two ports, and

the connectivity apparatus supporting a fixed frame transfer rate and a fixed

number of data buses, the same frame transfer rate and the same number of data buses

being used for each frame transferred between any two ports.

7 72. (New)   The interconnect system of Claim 71 wherein the fixed frame transfer

rate includes a fixed number of active data buses transferring actual data signals for all data

transfers.

8 73. (New)   The interconnect system of Claim 71 wherein the connectivity

apparatus is clocked at the same frequency for every frame.

9 74. (New)   A switch having a plurality of ports for routing received Fibre Channel

frames between multiple attached devices comprising,

a first port supporting a first link speed,

a second port supporting a second link speed, the second link speed different

from the first port link speed,

a third port supporting a third link speed, the third link speed is the same as either the first port link speed or the second port link speed,

a connectivity apparatus coupled to the first port and the second port for selective interconnection there-between,

the connectivity apparatus transferring frames using a constant number of data signals and a constant clock rate, having the same values between any two ports.

16. (New)   A method for interconnecting a plurality of ports for transferring received Fibre Channel frames, the Fibre Channel frames including frame data, between multiple attached devices, the method comprising the steps of:

receiving an incoming frame at a first port adapted to support multiple link speeds,

determining the destination port to route the first frame,

the destination port's link speed being different from the first port, and

transferring the Fibre Channel frame from the first port to the destination port through a connectivity apparatus, coupled to the first and the destination ports, the connectivity apparatus including a plurality of data buses,

wherein the number of data buses utilized to transfer the frame data received by the first port is the same irrespective of whether the link speeds of the first and second port are the same or different.

17. (New)   A method for interconnecting attached Fibre Channel devices a switch comprising the steps of:

receiving an incoming frame at a first port,

determining the destination port to route the first frame,

the destination port's link speed being different from the first port, and

transferring the Fibre Channel frame from the first port to the destination port

through a connectivity apparatus, coupled to the first and the destination ports, the

connectivity apparatus including a plurality of data buses,

the connectivity apparatus supporting a fixed frame transfer rate and a fixed

number of data buses, the same frame transfer rate and the same number of data buses

being used for each frame transferred between any two ports.

177. (New)   A system for interconnecting a Fibre Channel device with an Ethernet

device at another speed, comprising:

a Fibre Channel port adapted to support multiple link speeds,

an Ethernet port,

processor and memory to effect the protocol conversion from Fibre Channel

to Ethernet, the processor and memory being coupled to the Ethernet port,

connectivity apparatus, the connectivity apparatus disposed between and

coupled to the Fibre Channel port, and the processor and memory,

a plurality of data buses, the data buses connecting the Fibre Channel port to

the connectivity apparatus,

wherein the number of data buses utilized to transfer the frame data received

by the Fiber Channel port is the same irrespective of the link speed of the Fibre

Channel port.

178. (New)   A method for sending frames between a Fibre Channel network

operating at one speed and an Ethernet network operating at another speed, the method

comprising the steps of:

receiving an incoming frame at a first Fibre Channel port at a first speed,

determining the destination port which to route the first Fibre Channel frame, the destination port contained within a protocol conversion module, the destination port being coupled to an Ethernet network,

transferring the Fibre Channel frame from the Fiber Channel port through a connectivity apparatus to the protocol conversion module, the connectivity apparatus transferring all frames using a constant number of data signals and a constant clock rate,

converting the Fibre Channel frame to a frame format compatible to being transmitted on an Ethernet network, and

transmitting the frame out the destination port.

79. (New)   The apparatus of Claim 66 wherein the connectivity apparatus includes a crossbar switch.

80. (New)   The apparatus of Claim 71 wherein the connectivity apparatus includes a crossbar switch.

81. (New)   The apparatus of Claim 74 wherein the connectivity apparatus includes a crossbar switch.

82. (New)   The method of Claim 75 wherein the connectivity apparatus includes a crossbar switch.

83. (New)   The method of Claim 76 wherein the connectivity apparatus includes a crossbar switch.

84. (New)   The system of Claim 77 wherein the connectivity apparatus includes a crossbar switch.

85. (New)   The method of Claim 78 wherein the connectivity apparatus includes a

crossbar switch.